Airport Commission Meeting

Planning Advisory Committee Meeting 3

October 20, 2023

VERO BEACH REGIONAL AIRPORT | HANSON

Agenda

- Introductions
- Aviation forecast overview
- Facility requirements overview
- Environmental overview highlights
- Alternatives analysis
  - Airfield (runways, taxiways, navaids and support facilities)
  - Emerging aircraft technologies
  - Commercial service and general aviation facilities
  - Nonaeronautical development opportunities
- Next steps
- Opportunity for public comment

Aviation Activity Forecasts

- Based aircraft
- Annual operations
- Commercial passenger service
  - enplanements
  - operations

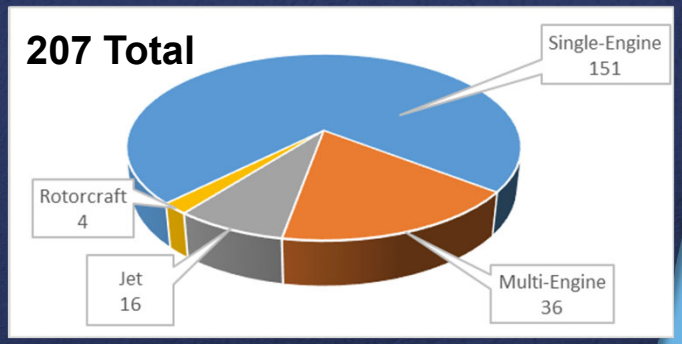
- Peaking characteristics
  - peak month
  - average day
  - peak hour
- Categories of operations
  - local vs. itinerant
  - instrument
  - operational fleet mix
- Critical aircraft

Aviation forecasts based on unconstrained conditions (i.e. projected demand with no facility limitations).

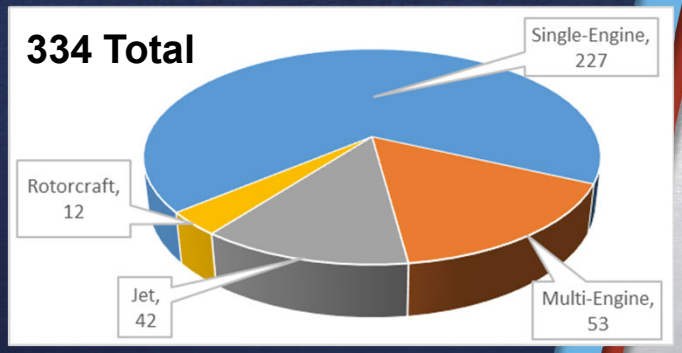
Aviation Activity Forecasts

	Annual Operations	Passenger Enplanements
Base Year		
2022	133,802	1,948
Forecast		
2028	218,300	38,400
2033	267,900	43,400
2043	307,900	55,500

2022 Based Aircraft



2043 Based Aircraft



Forecasts approved by Federal Aviation Administration July 21, 2023.

Facility Requirements

- Based on
  - VRB-approved aviation forecast
  - Critical aircraft by runway and taxiway
  - FAA design standards and Part 139 certification requirements
  - Input from inventory interviews

Facility Requirements

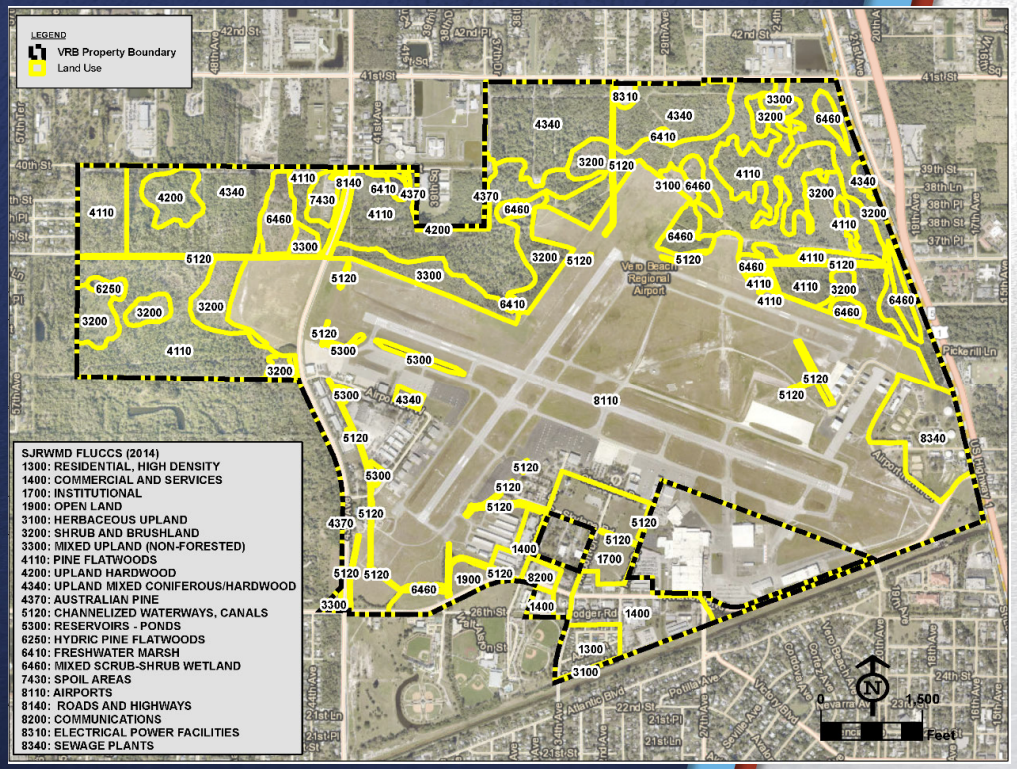
- Airfield capacity – all three runways needed
- Runways
  - Potential for lower instrument approach minimums
  - Eliminate declared distances runways 12R/30L and 4/22
  - Eliminate overlapping runway safety areas (RSA)
  - Extend Runway 4/22
- Taxiways
  - Resolve direct apron to runway connectors
  - Extend taxiways B and E full length of runway
  - Realign Taxiway C
  - Potential relocation of southern portion of Taxiway A
  - Add bypass taxiway at Runway 12R
  - Redesignate end connectors

Facility Requirements

- Navaids and airfield facilities
  - Relocate ASOS and compass calibration pad
- Preserve space for commercial service facilities
  - Terminal
  - Parking
  - Pedestrian access
- Identify areas for general aviation development
- Identify areas for nonaeronautical development
- Improve other automobile parking
- Improve utility is to support development

Environmental Overview

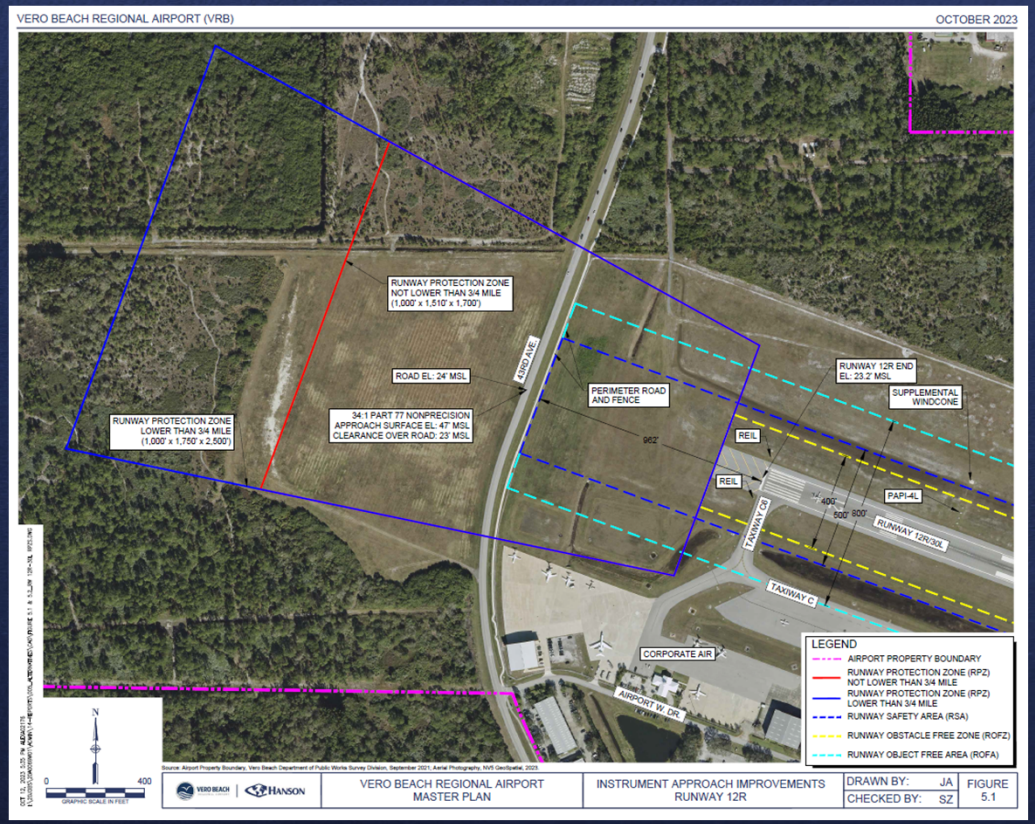
- Biological resources
- Water resources
- Air quality
- Hazardous materials and waste management
- Historical/cultural resources
- Other resources (Section 4f, energy and construction)
- Federal and state environmental review processes

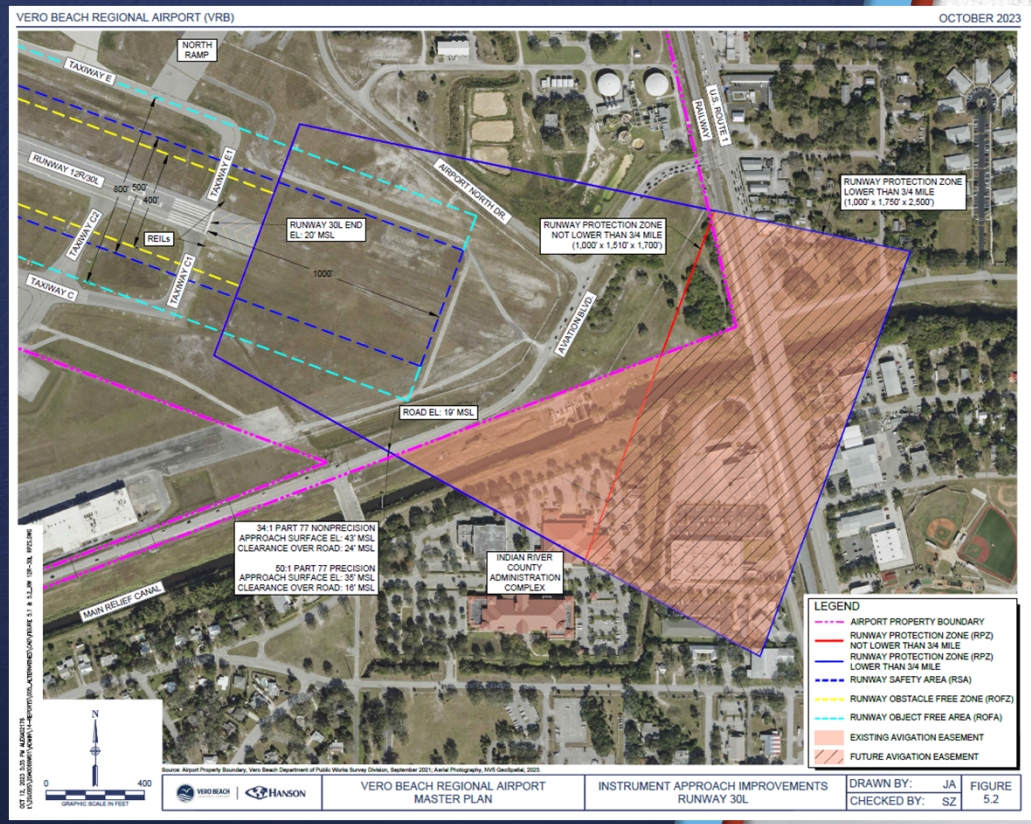


Alternatives Analysis

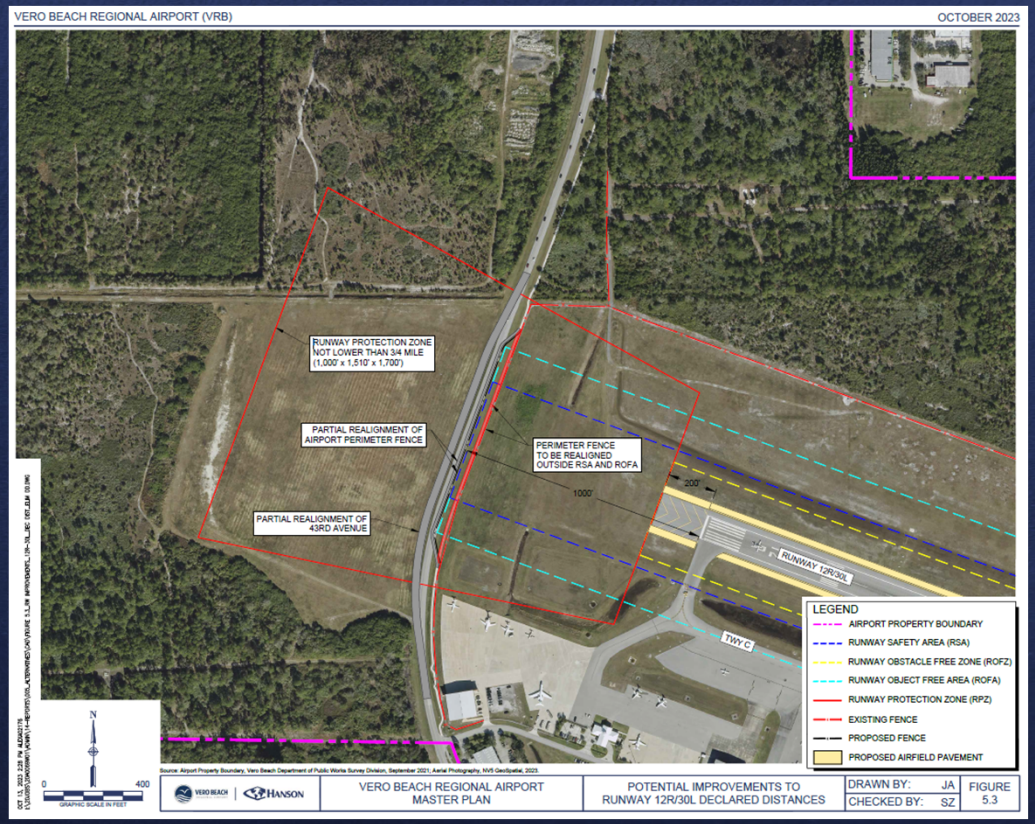
- Evaluate for
  - Technical feasibility – meets FAA standards
  - Operational feasibility – flexibility, meets forecast users' needs
  - Conformance with local, state and regional planning
  - Financial feasibility – avoid excessive costs
  - Social and political feasibility – community acceptance
  - Environmental impacts - minimize
  - Highest and best use

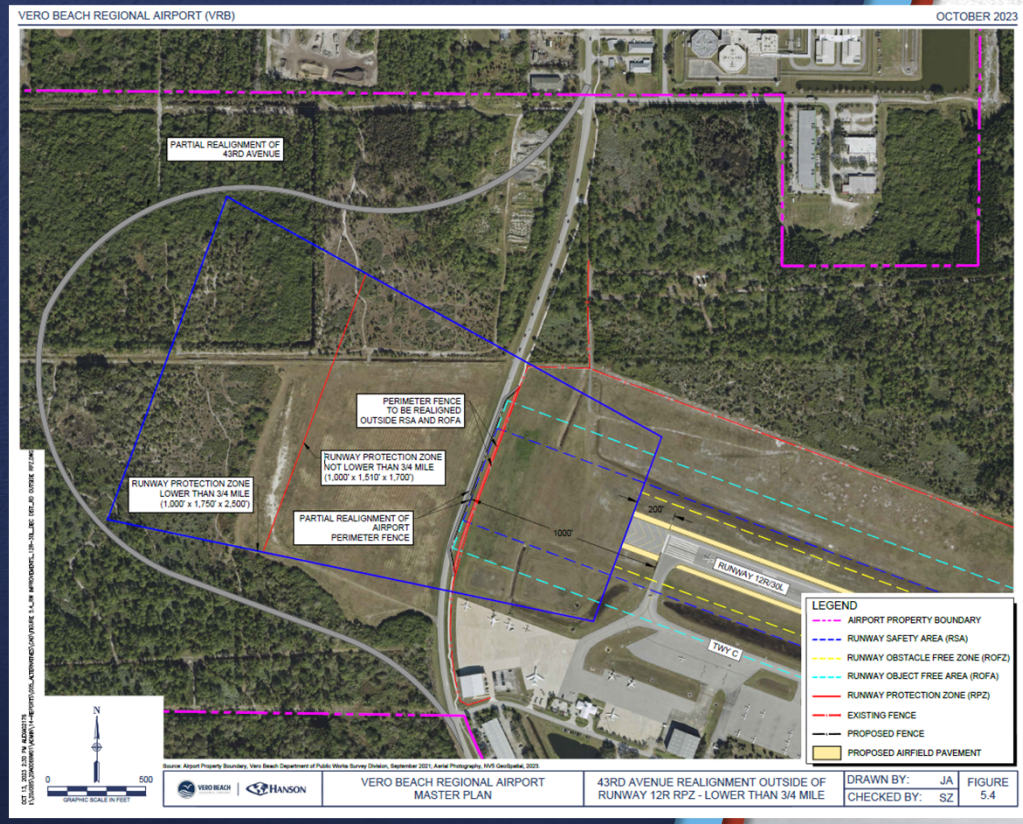
Runway 12R/30L – Potential Lower Instrument Approach Minimums



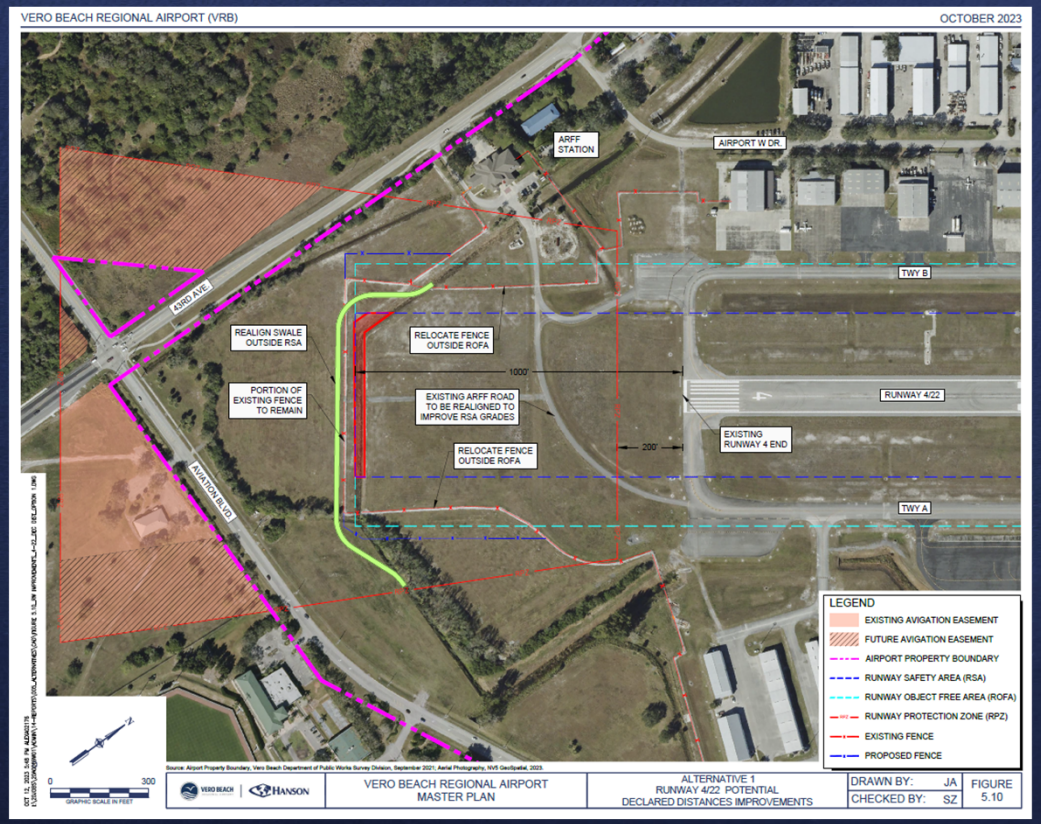


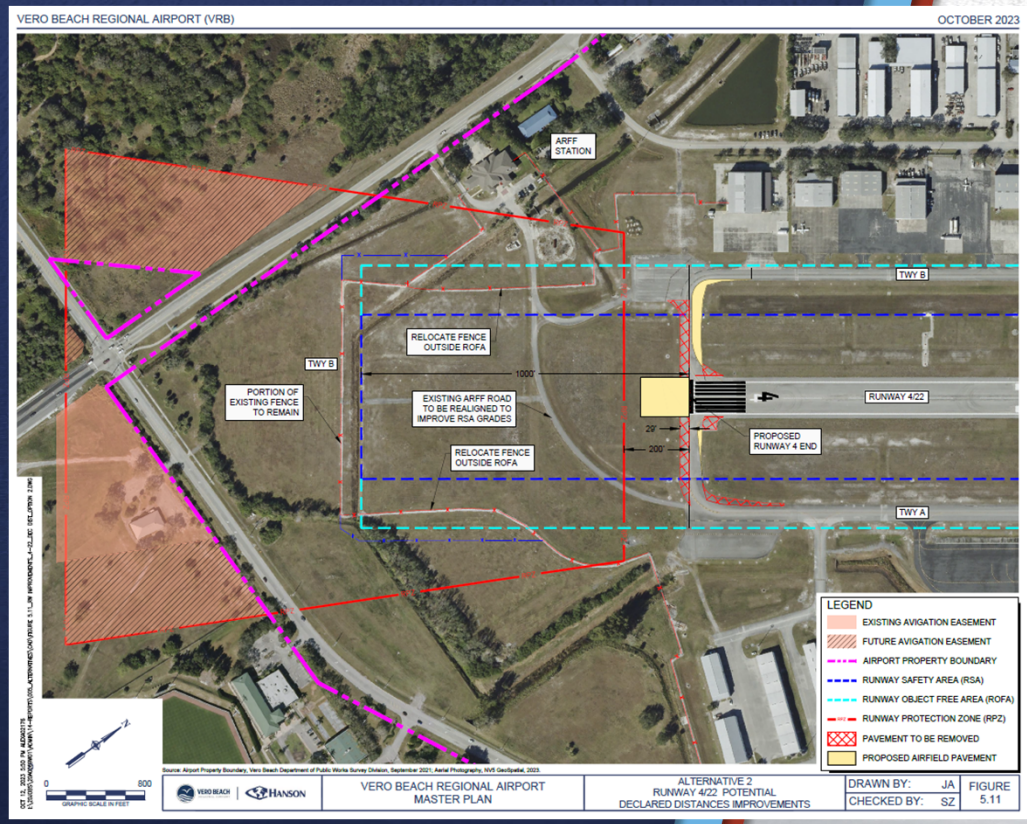
Runway 12R/30L – Eliminate Declared Distances



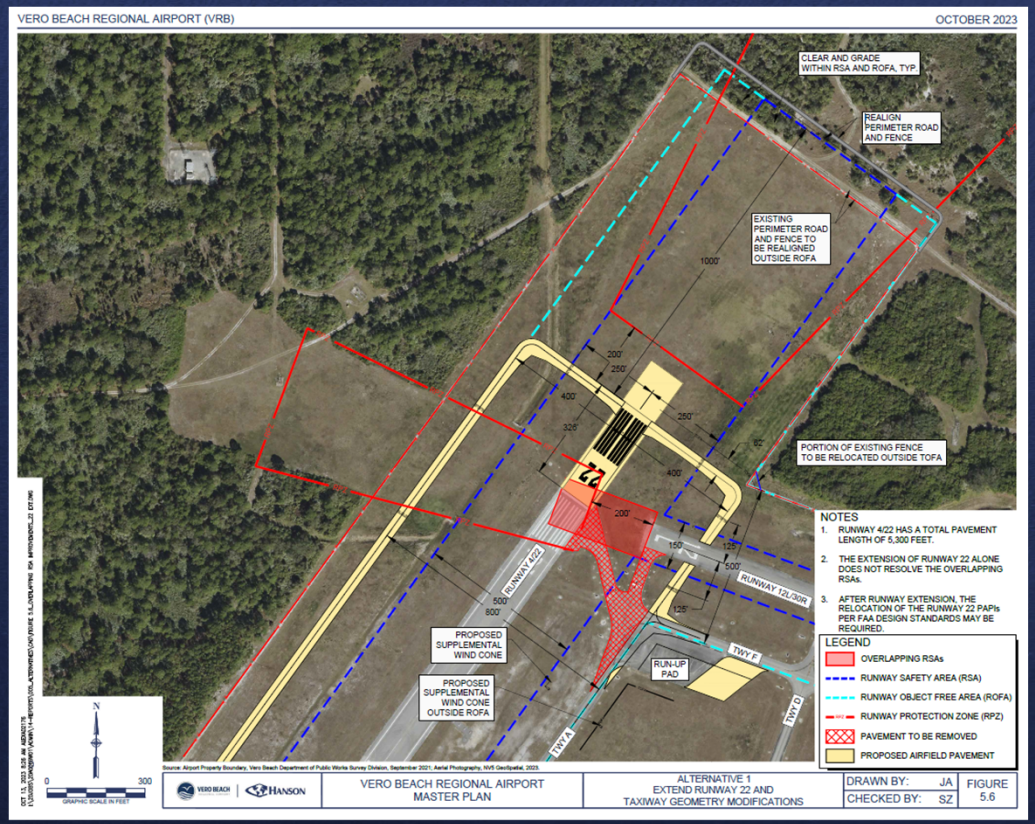

VERO BEACH REGIONAL AIRPORT (VRB)
OCTOBER 2023
PARTIAL REALIGNMENT OF 43RD AVENUE
PERIMETER FENCE TO BE REALIGNED OUTSIDE RSA AND ROFA
RUNWAY PROTECTION ZONE NOT LOWER THAN 3/4 MILE (1,000' x 1,510' x 1,700')
RUNWAY PROTECTION ZONE LOWER THAN 3/4 MILE (1,000' x 1,750' x 2,500')
PARTIAL REALIGNMENT OF AIRPORT PERIMETER FENCE
1000'
200'
RUNWAY 12R/30L
TWY C
LEGEND
AIRPORT PROPERTY BOUNDARY
RUNWAY SAFETY AREA (RSA)
RUNWAY OBSTACLE FREE ZONE (ROFZ)
RUNWAY OBJECT FREE AREA (ROFA)
RUNWAY PROTECTION ZONE (RPZ)
EXISTING FENCE
PROPOSED FENCE
PROPOSED AIRFIELD PAVEMENT
N
0
500
GRAPHIC SCALE IN FEET
VERO BEACH REGIONAL AIRPORT MASTER PLAN
43RD AVENUE REALIGNMENT OUTSIDE OF RUNWAY 12R RPZ - LOWER THAN 3/4 MILE
DRAWN BY: JA
CHECKED BY: SZ
FIGURE 5.4

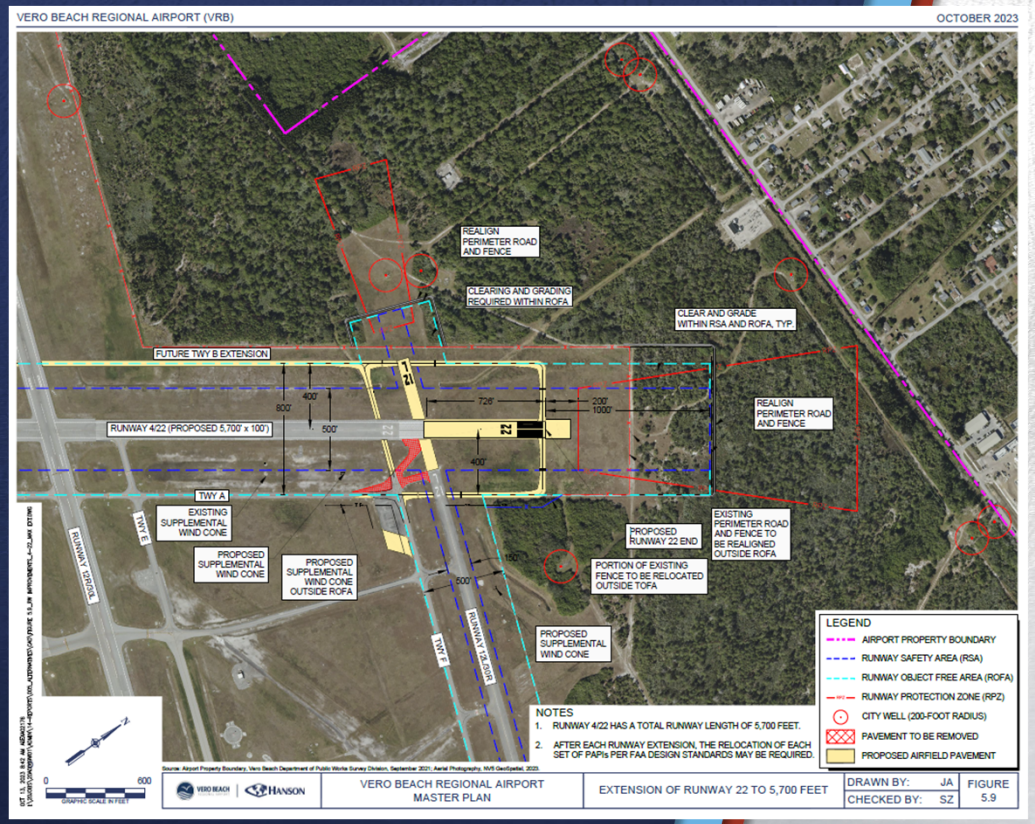
Runway 4/22 – Eliminate Declared Distances



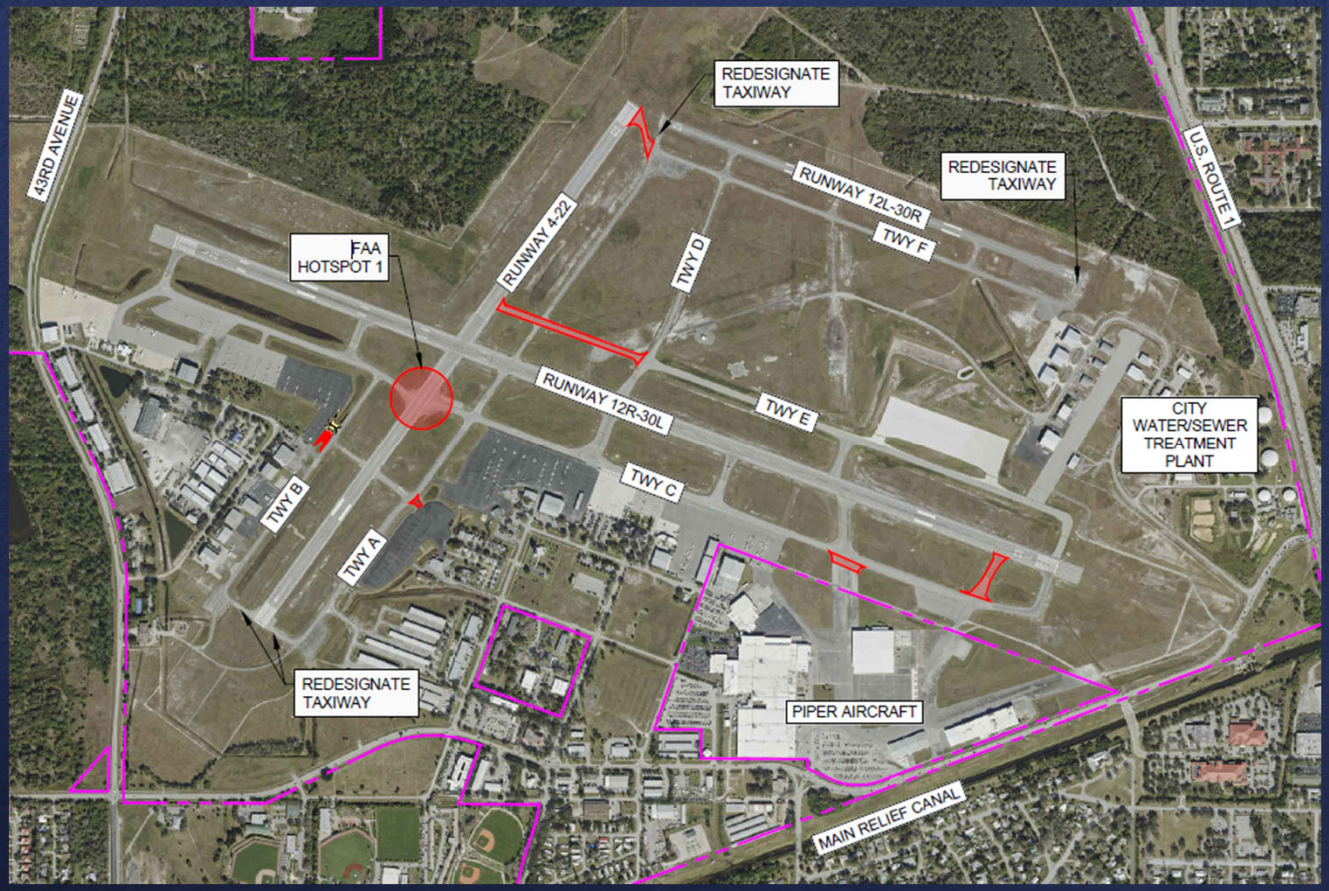


Runway 4/22 Extension

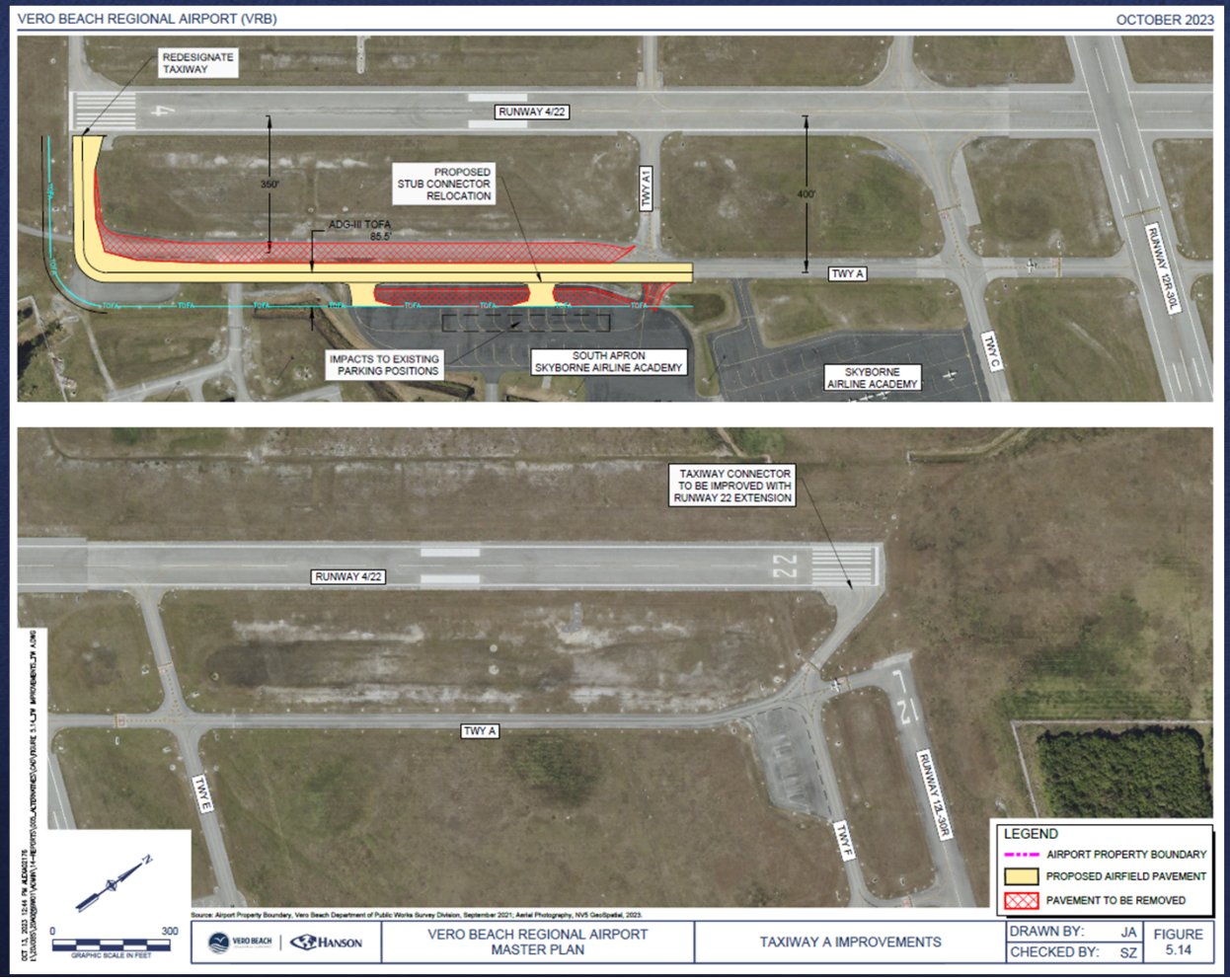

VERO BEACH REGIONAL AIRPORT (VRB)
OCTOBER 2023
CLEAR AND GRADE WITHIN RSA AND ROFA, TYP.
REALIGN PERIMETER ROAD AND FENCE
EXISTING PERIMETER ROAD AND FENCE TO BE REALIGNED OUTSIDE ROFA
PORTION OF EXISTING FENCE TO BE RELOCATED OUTSIDE TOFA
PROPOSED SUPPLEMENTAL WIND CONE
PROPOSED SUPPLEMENTAL WIND CONE OUTSIDE ROFA
RUN-UP PAD
RUNWAY 4/22
RUNWAY 12L/30R
TWY A
TWY D
TWY F
NOTES
1. RUNWAY 4/22 HAS A TOTAL PAVEMENT LENGTH OF 5,300 FEET.
2. THE EXTENSION OF RUNWAY 22 ALONE DOES NOT RESOLVE THE OVERLAPPING RSAs.
3. AFTER RUNWAY EXTENSION, THE RELOCATION OF THE RUNWAY 22 PAPIs PER FAA DESIGN STANDARDS MAY BE REQUIRED.
LEGEND
OVERLAPPING RSAs
RUNWAY SAFETY AREA (RSA)
RUNWAY OBJECT FREE AREA (ROFA)
RUNWAY PROTECTION ZONE (RPZ)
PAVEMENT TO BE REMOVED
PROPOSED AIRFIELD PAVEMENT
VERO BEACH REGIONAL AIRPORT MASTER PLAN
ALTERNATIVE 1 EXTEND RUNWAY 22 AND TAXIWAY GEOMETRY MODIFICATIONS
DRAWN BY: JA
CHECKED BY: SZ
FIGURE 5.6


VERO BEACH REGIONAL AIRPORT (VRB)
OCTOBER 2023
REALIGN PERIMETER ROAD AND FENCE
CLEARING AND GRADING REQUIRED WITHIN ROFA
CLEAR AND GRADE WITHIN RSA AND ROFA, TYP.
FUTURE TWY B EXTENSION
RUNWAY 4/22 (PROPOSED 5,700' x 100')
REALIGN PERIMETER ROAD AND FENCE
TWY A
EXISTING SUPPLEMENTAL WIND CONE
PROPOSED SUPPLEMENTAL WIND CONE
PROPOSED SUPPLEMENTAL WIND CONE OUTSIDE ROFA
PROPOSED RUNWAY 22 END
EXISTING PERIMETER ROAD AND FENCE TO BE REALIGNED OUTSIDE ROFA
PORTION OF EXISTING FENCE TO BE RELOCATED OUTSIDE TOFA
PROPOSED SUPPLEMENTAL WIND CONE
RUNWAY 12/30
RUNWAY 13-31SR
TWY E
TWY F
NOTES
1. RUNWAY 4/22 HAS A TOTAL RUNWAY LENGTH OF 5,700 FEET.
2. AFTER EACH RUNWAY EXTENSION, THE RELOCATION OF EACH SET OF PAPIs PER FAA DESIGN STANDARDS MAY BE REQUIRED.
LEGEND
AIRPORT PROPERTY BOUNDARY
RUNWAY SAFETY AREA (RSA)
RUNWAY OBJECT FREE AREA (ROFA)
RUNWAY PROTECTION ZONE (RPZ)
CITY WELL (200-FOOT RADIUS)
PAVEMENT TO BE REMOVED
PROPOSED AIRFIELD PAVEMENT
VERO BEACH REGIONAL AIRPORT MASTER PLAN
EXTENSION OF RUNWAY 22 TO 5,700 FEET
DRAWN BY: JA
CHECKED BY: SZ
FIGURE 5.9

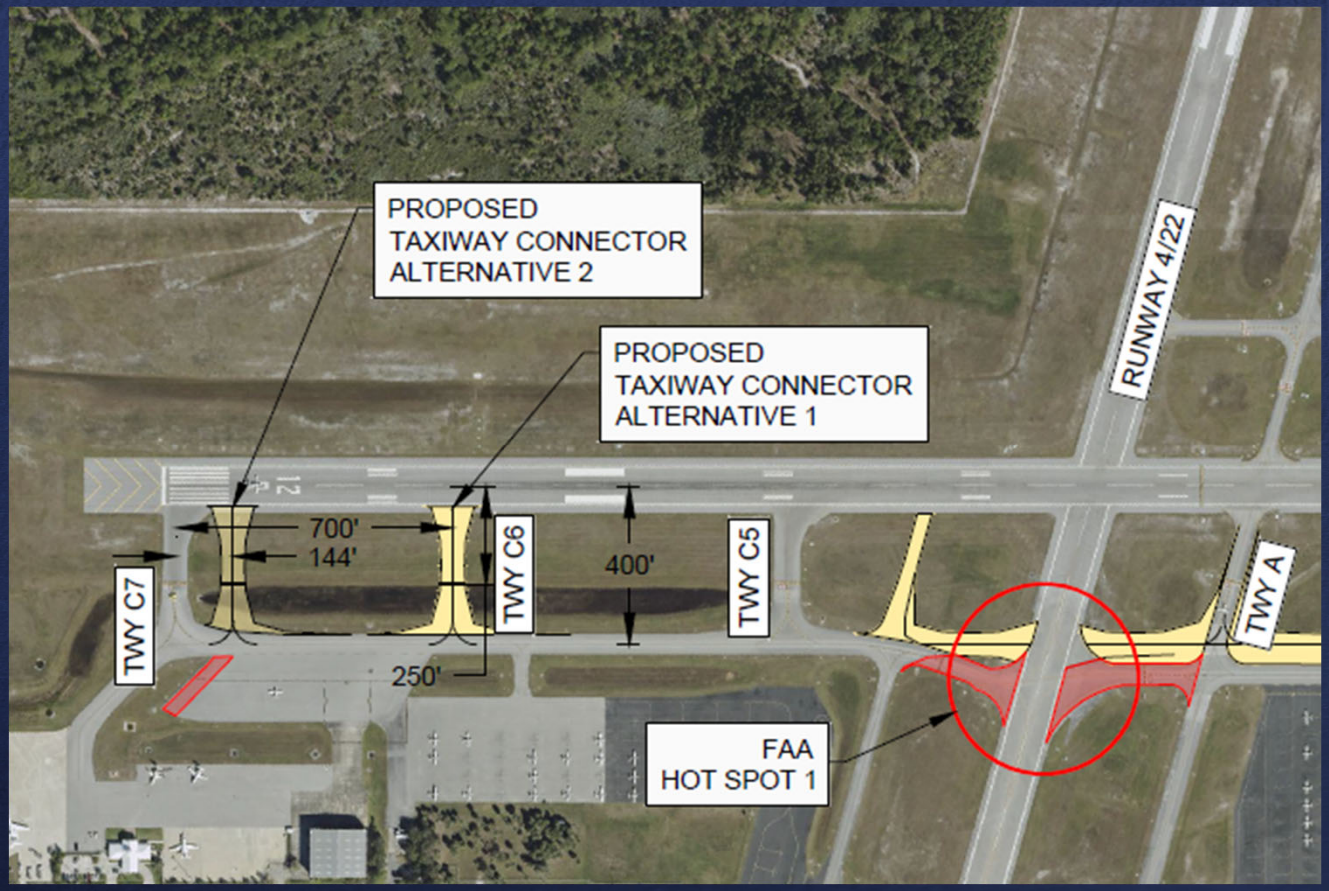
Previous ALP Taxiway Improvements



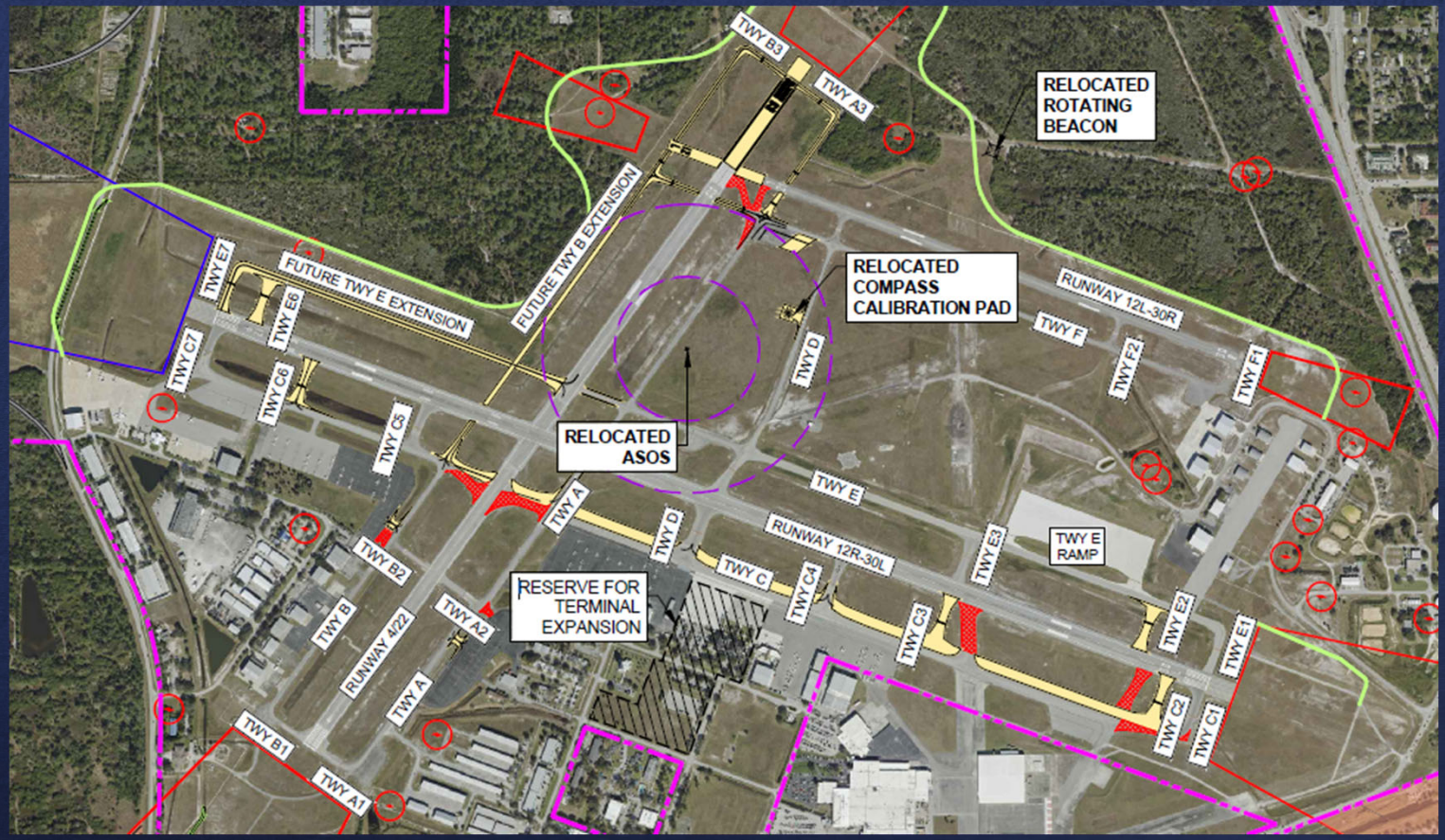
Taxiway A Improvements



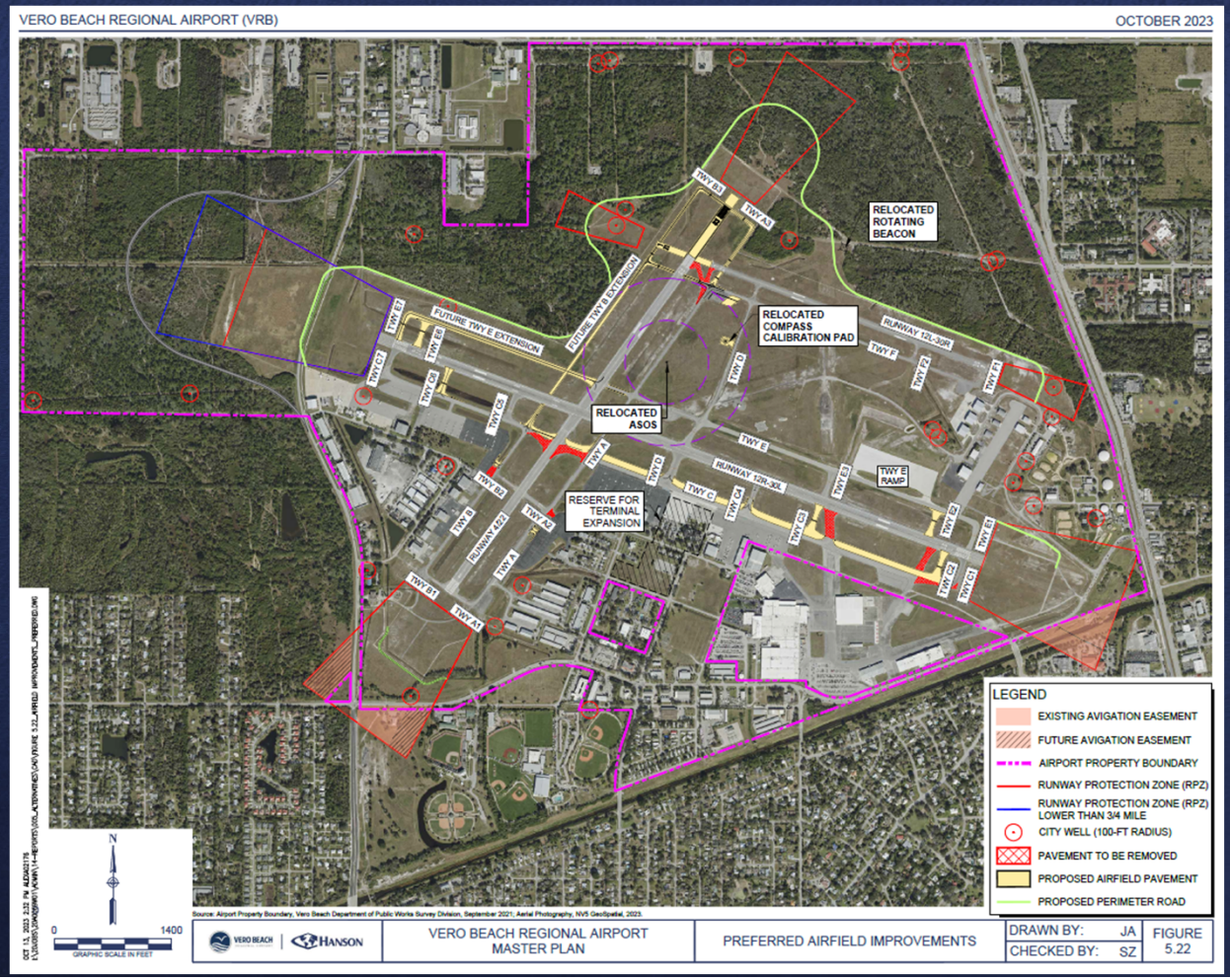
Taxiway C Improvements – Bypass



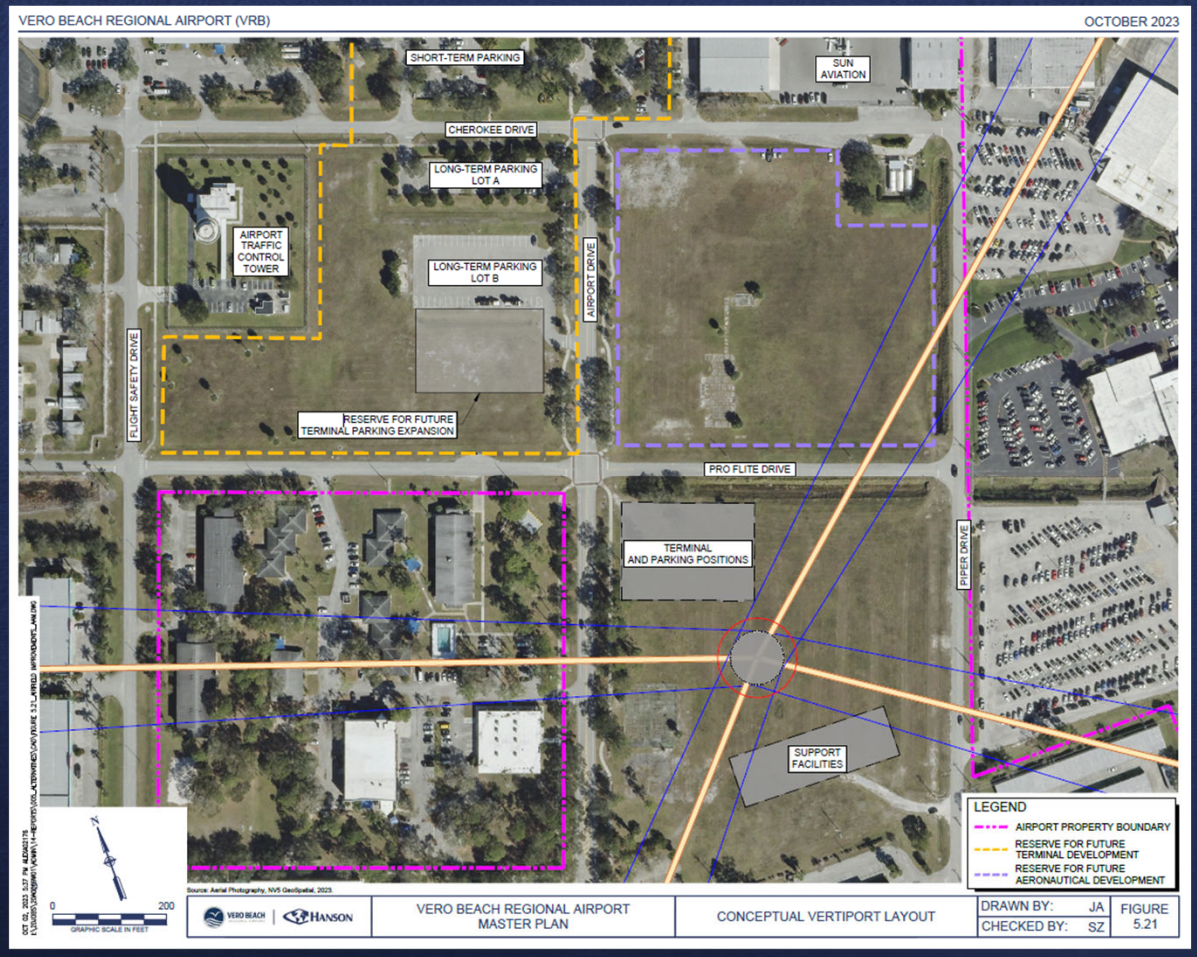
Support Facilities Relocation



Preferred Airfield Improvements



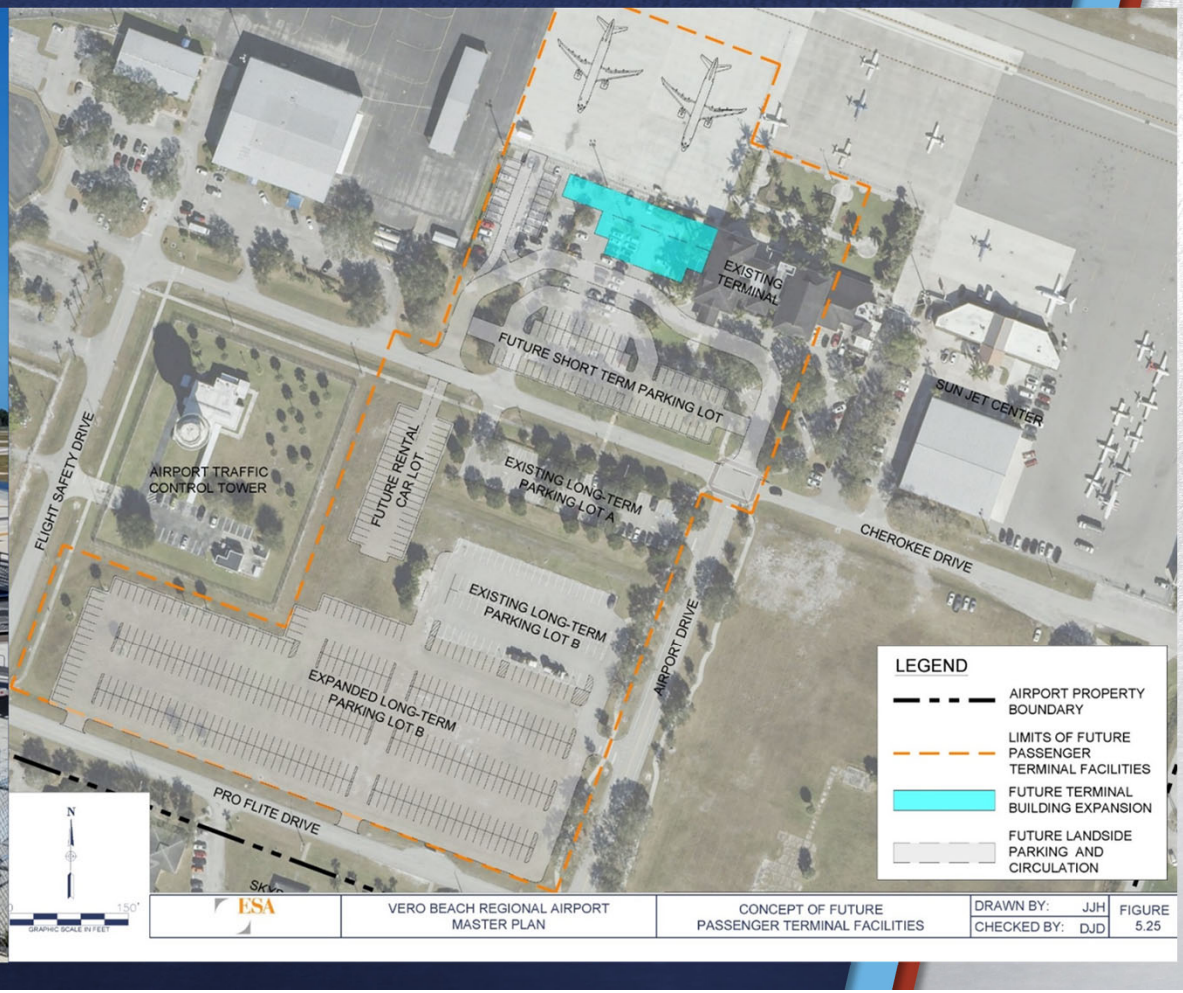
Emerging Aircraft Technologies



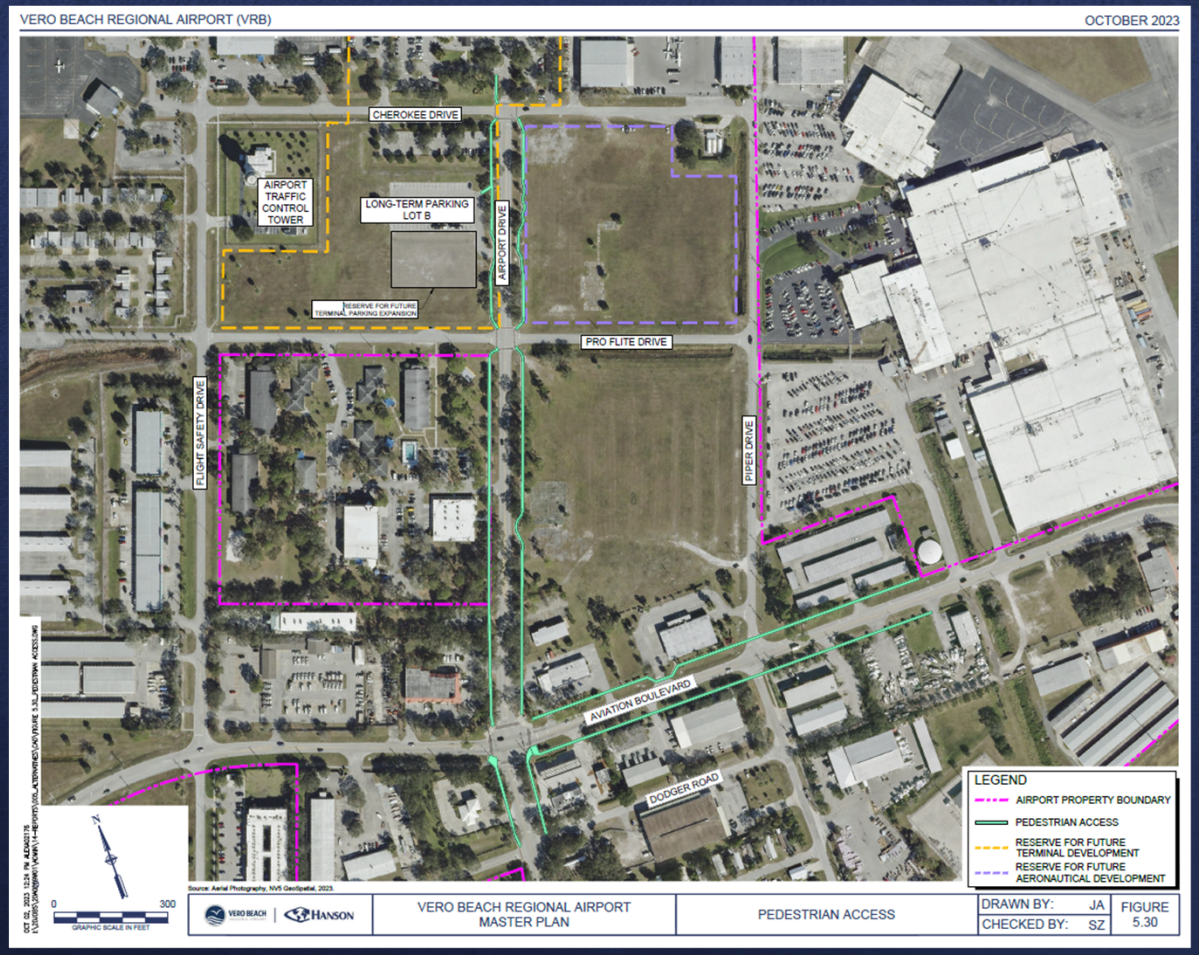
Passenger Terminal Building

	Existing	After 2024 Renovations	Future Planning	
Departures	4,109 SF	4,822 SF	9,550 SF	Additional *Check-in Counters, Baggage Screening, Passenger Security* and *Holdroom* space to eventually accommodate two overlapping flights.
Arrivals	232 SF	1,657 SF	2,880 SF	Addition of *Arrival Lounge* and ultimately *Baggage Claim* indoors to eventually accommodate two overlapping flights.
Total	**4,341 SF**	**6,479 SF**	**12,430 SF**	

Commercial Service



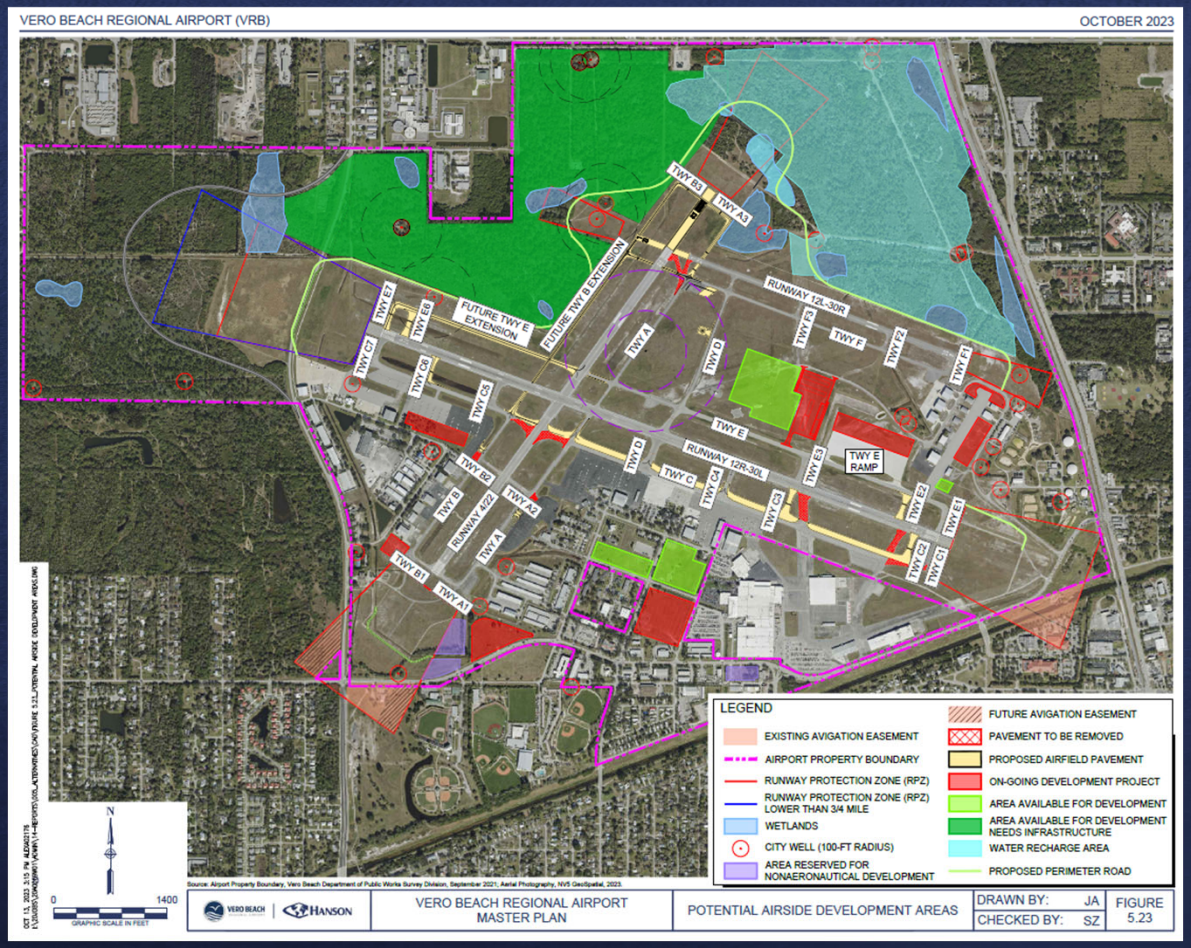
Pedestrian Access



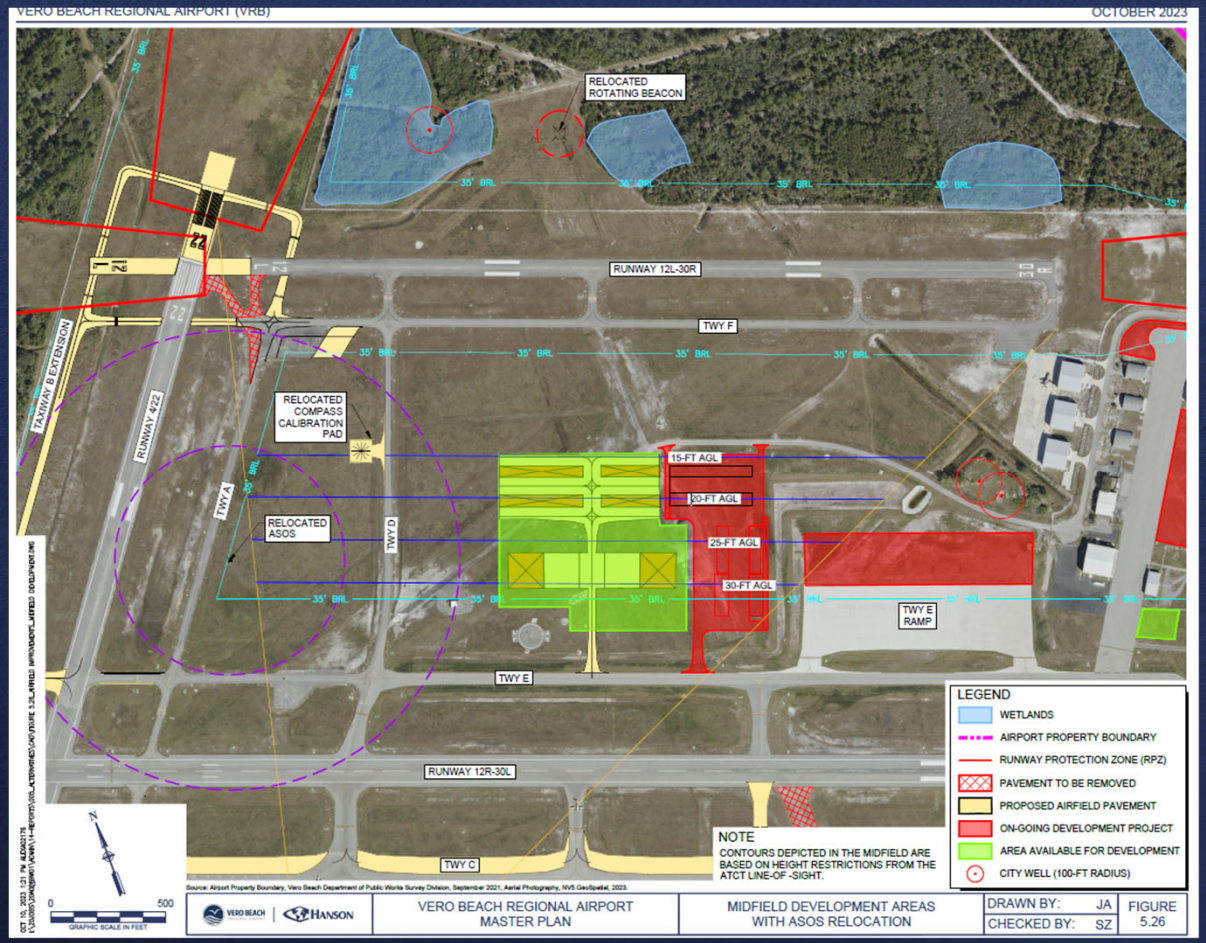
GA Hangar Facilities

	Based Aircraft		
Total 2022	**216**		
Skyborne Airline Academy	44		
Paris Air	31		
2022 Total Aircraft in Hangars	**141**		
Total 2043	**334**		
Skyborne Airline Academy	52		
Paris Air	37		
2043 Total Aircraft in Hangars	**245**		
	Number of Aircraft		
Aircraft Type	**2022**	**2043**	**Net Difference**
Single-Engine	70	138	68
Multi-Engine	38	53	15
Jet	16	42	26
Helicopter	3	12	9
Aircraft Registered at Another Airport	10	10	0
Aircraft at Piper	4	4	0
2043 Future Hangar Needs			
T-Hangars (Single-Engine)	Total Units to Meet Future Demand		68 units
Small Box Hangar (Multi-Engine)	Additional aircraft Square footage		15 aircraft 45,000 SF
Large Box Hangars (Jets)	Additional aircraft Square footage		26 aircraft 184,600 SF
Box Hangar (Helicopter)	Additional helicopters Square footage		9 Helicopters 18,000 SF

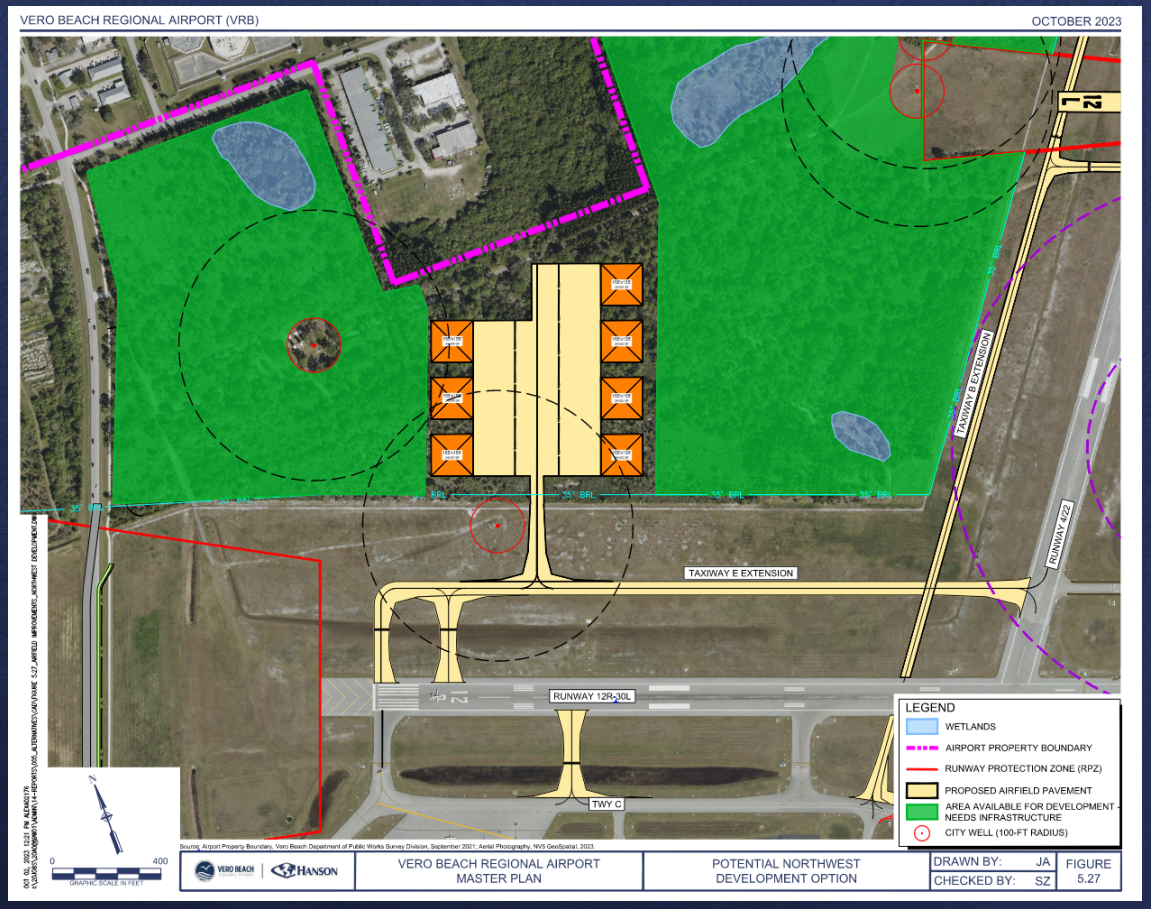
Potential Airside Development Areas



Midfield Hangar Concept

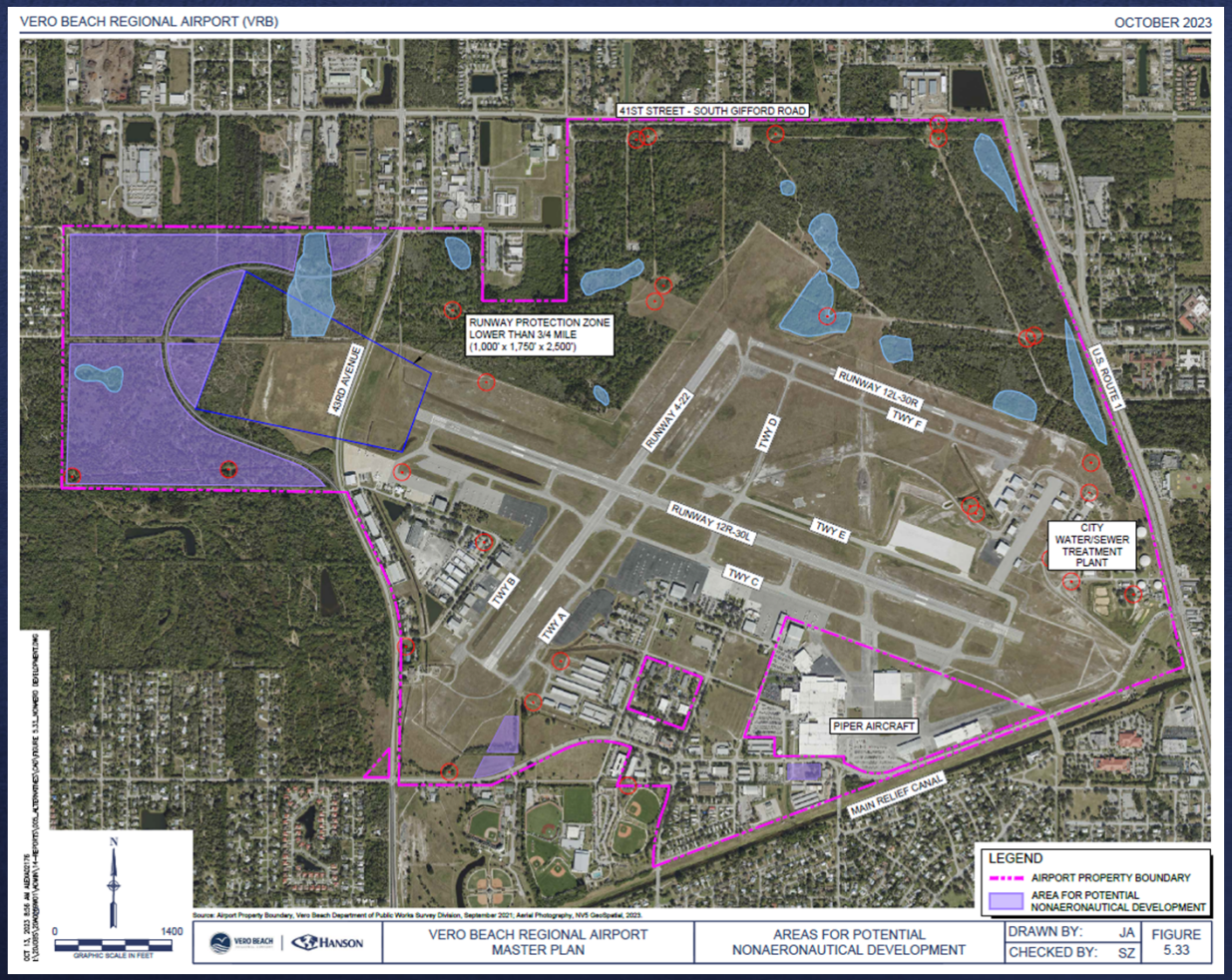


Northwest Hangar Concept

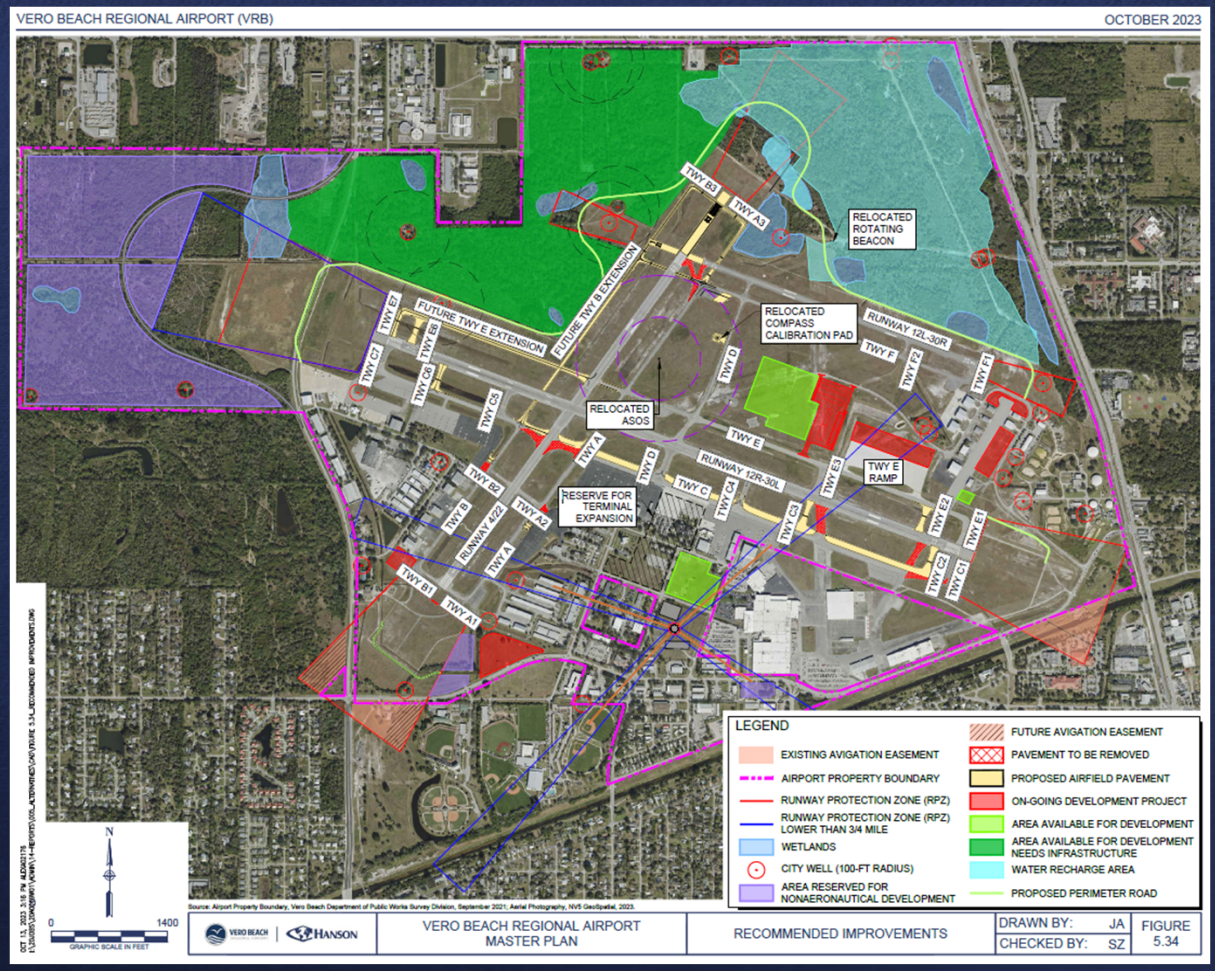


Dodger Road Improvements

Nonaeronautical Opportunities



Recommended Improvements



Next Steps

- Receive input on recommended alternatives
- Prepare implementation plan
- Start ALP for existing conditions
- Conduct PAC meeting 4/public workshop (February 2024)
- Finalize recommended development plan
- Complete ALP (May 2024)
- FAA/Florida Department of Transportation review of ALP

Project Website – Public Comment

- For additional information regarding the VRB airport master plan, please visit https://www.vrbmasterplan.com/ .
- A link to project website is also on the airport's website.
- Website contains FAQs to be updated during study.
- Presentations as they occur
- Draft working papers as prepared
- **Opportunity to submit comments**

- In addition to the website, there will be a public information workshop

Opportunity for Public Comment